

DOCKET NO. D-1967-123 CP-2

DELAWARE RIVER BASIN COMMISSION

**Southeastern Pennsylvania
Ground Water Protected Area**

**Borough of Phoenixville
Water Treatment Plant and Surface Water Withdrawal
Phoenixville Borough, Chester County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an Application submitted by Remington, Vernick and Beach Engineers on behalf of the Borough of Phoenixville (BOP or docket holder) to the Delaware River Basin Commission (DRBC or Commission) on September 10, 2012 (Application), for a renewal of a surface water withdrawal project previously approved by the Commission on March 27, 1968. The project was approved by the Power and Water Resources Board on June 19, 1967 (Water Allocation Permit No. WA-228-A).

The Application was reviewed for continuation in the Comprehensive Plan and approval under Section 3.8 of the *Delaware River Basin Compact*. The Chester County Planning Commission has been notified of pending action on this docket. A public hearing on this project was held by the DRBC on December 5, 2012.

A. DESCRIPTION

1. Purpose. The purpose of this docket is to renew a surface water supply project which was previously approved by the Commission on March 27, 1968. This docket provides updated information since the last docket approval and provides a surface water withdrawal allocation of up to 182.311 million gallons per month (mgm) (5.881 million gallons per day [mgd]) for use in the docket holder's existing public water supply system. The Borough of Phoenixville water treatment plant (WTP), withdrawals and service area are located within the Southeastern Pennsylvania Ground Water Protected Area.

2. Location. The Borough of Phoenixville WTP is located adjacent to the Schuylkill River in the northern portion of the Borough of Phoenixville, Chester County, Pennsylvania. The water supply is obtained from two (2) intakes located on the Schuylkill River upstream from the mouth of French Creek. Specific location information has been withheld for security reasons.

3. Area Served. The Borough of Phoenixville service area includes the Borough of Phoenixville and adjacent portions of Schuylkill Township and East Pikeland Township, Chester County and Upper Providence Township, Montgomery County, Pennsylvania as shown on a map dated November 1, 2012, submitted as part of the Application. Additionally, the Borough of Phoenixville has two (2) interconnections through which it regularly provides a bulk sale of water to Pennsylvania American Water Company (PAWC). The interconnections are described in Section 4.b.iii of this docket. For the purpose of defining Area Served, the Application is incorporated herein by reference consistent with conditions contained in the Decisions section of this docket.

4. Physical features.

a. Design criteria. The water supply system presently serves a population of 16,438 persons through 5,618 domestic service connections, 400 commercial service connections, and 19 industrial service connections. The present average and maximum water demand of the system is 2.163 million gallons per day (mgd) and 3.872 mgd, respectively. These demands include the borough's bulk sale of water to PAWC which in year 2011 was an average of 0.204 mgd and a maximum of 0.366 mgd. Because of an increase in population (projected total of 20,360 persons) and an additional capacity request from PAWC (total maximum of up to 2.0 mgd), the 10-year projected average and maximum water demands are expected to increase to 2.934 mgd and 5.881 mgd, respectively.

b. Facilities. The Borough's public water supply facilities include two surface water withdrawal intakes, a 4.5 mgd design capacity water filtration plant, two covered ground level storage reservoirs and the Lane Avenue standpipe (10.4-million gallon total capacity), the distribution system including two regular interconnections with PAWC and an emergency interconnection with Aqua PA. Specific details of the facilities are as follows:

i) Schuylkill River Intakes. Raw water for the Borough of Phoenixville system is drawn through two intakes as described below.

INTAKE NO.	WITHDRAWAL WATER BODY	PUMP CAPACITY ¹	7Q10 FLOW AT INTAKE (CFS) ²	YEAR CONSTRUCTED
No. 1	Schuylkill River	5.040 mgd	329	1872
No. 2	Schuylkill River	5.040 mgd	329	1954

¹ Each intake has 2 low lift pumps. Listed pump capacity is for only 1 low lift pump operating at full capacity.

² Data source: USGS Low-Flow Statistics for Pennsylvania Streams

ii) Water Treatment Plant. Prior to entering the water supply distribution system, water withdrawn from the Schuylkill River is treated at the 4.5 mgd capacity Borough of Phoenixville WTP. The plant is located on the northern boundary of the borough adjacent to the Schuylkill River at river mile 92.47 - 39.1 (Delaware River - Schuylkill River).

The existing WTP consists of a raw water pumping station, pre-and post-chlorination system, chemical feed systems, rapid mix tank for coagulation, two parallel flocculation tanks, two parallel sedimentation tanks, rapid rate dual media gravity filters, clear well and finished water pumping system. All finished water is pumped from the WTP's clear well into two covered ground level storage reservoirs and then to the distribution system.

The filters are washed by a reverse flow washing system with water obtained from the clear well. The filter backwash effluent is directed to a 1.25 million gallon lagoon. Clarified overflow from the lagoon is returned to the raw water intake line and settled sludge is pumped to the Borough of Phoenixville wastewater treatment plant, which is described in Docket No. D-1967-080 CP-3, approved by the Commission on July 11, 2012.

iii) Interconnections. The Borough of Phoenixville regularly distributes water to PAWC via one interconnection located in Mont Clare, Upper Providence Township, Montgomery County, Pennsylvania and a second interconnection located in East Pikeland Township, Chester County, Pennsylvania. PADEP Permit No. WA-15-149 D, approved on March 26, 1990, allowed for the purchase of 1.0 mgd based on a 30 day average. The 1986 Water Supply Agreement allows PAWC to purchase a maximum of 1.15 mgd of finished water from the Borough of Phoenixville. The interconnections were approved by DRBC Docket No. D-90-26 CP which was issued to Citizens Utilities Home Water Company (CUHWC) on September 26, 1990, and transferred to PAWC on March 12, 2002.

The Borough of Phoenixville also maintains an interconnection with Aqua Pennsylvania, which is used only for emergency purposes.

All surface water withdrawals, interconnections and water service connections are metered.

Portions of the water treatment plant are located in the 100-year floodplain. A floodwall has been constructed at the site.

c. Other. Wastewater that is generated in the Borough of Phoenixville's service area is conveyed to the Borough of Phoenixville WWTP, most recently approved by DRBC Docket No. D-1967-080 CP-3 on July 11, 2012. The PADEP issued its most recent NPDES Permit No. PA0027154 for this treatment facility on January 23, 2012 (effective February 1, 2012). The wastewater treatment facility has adequate capacity to receive wastewater from the Borough of Phoenixville service area.

Wastewater that is generated from the sale of water to PAWC for use in Upper Providence Township is conveyed to the Lower Perkiomen Valley Regional Sewer Authority (LPVRS) Oaks WWTP, which was most recently approved by DRBC Docket No. D-2001-042 CP-3 on December 9, 2009. The PADEP issued its most recent NPDES Permit No. PA0026964 for this treatment facility on June 4, 2009. The wastewater treatment facility has adequate capacity to receive wastewater from the PAWC service area that is supplied by the Borough of Phoenixville.

Wastewater that is generated from the sale of water to PAWC for use in East Pikeland Township, Chester County, Pennsylvania, is conveyed to the Valley Forge Sewer Authority WWTP, which was most recently approved by DRBC Docket No. D-1995-006 CP-3 on December 8, 2010. The PADEP issued its most recent NPDES Permit No. PA0043974 for this treatment facility on July 16, 2009. The wastewater treatment facility has adequate capacity to receive wastewater from the PAWC service area that is supplied by the Borough of Phoenixville.

d. Relationship to the Comprehensive Plan. The Borough of Phoenixville WTP was previously included in the Comprehensive Plan by Resolution R-62-14, Addendum No. 1, Section VII, Pre-Existing Projects adopted July 25, 1962. The proposed Borough of Phoenixville water filtration plant expansion and additional allocation of surface water was approved and the project added to the Comprehensive Plan via DRBC Docket No. D-67-123 CP on March 27, 1968.

B. FINDINGS

The Borough of Phoenixville Water Filtration plant expansion was approved by the Commission on March 27, 1968 in Docket No. D-67-123 CP. The plant was to be expanded to provide for an estimated population of 40,000 persons requiring 5.0 mgd and an industrial use of 4.0 mgd in the year 1987. The Water and Power Resources Board approved an increase in allocation of water and water rights to a total amount of 7.0 mgd of water from the Schuylkill River.

Sometime in the late 1960's or early 1970's, the Borough of Phoenixville constructed additional treatment facilities adjacent to the original water filtration plant. The expansion provided an additional 4.5 mgd treatment capacity to the original 4.0 mgd capacity filtration plant. Since the time of the water treatment plant expansion, the Borough has discontinued the use of the older equipment that was part of the Borough's original treatment plant and the current water treatment plant now has a treatment capacity of 4.5 mgd.

In its Application, the Borough of Phoenixville requested an allocation of 7 mgd (217 mgm) of surface water from the Schuylkill River. However, the estimated ten-year projected maximum water use as stated in the Application is 5.881 mgd (182.311 mgm). The Commission bases allocations on ten-year projected maximum use estimates, with some minor flexibility for municipal public water purveyors. The allocation of 182.311 mgm (5.881 mgd) provided by this docket should meet the future water needs of the Borough and its interconnection responsibilities.

The projected demands are greater than the current treatment capacity of the water treatment plant. It is likely that an expansion of the WTP will be necessary in the future. Within three years of docket approval, the docket holder shall submit a study of their current and projected ten-year water demands and shall file a progress report thereon with the Commission and PADEP. This report will discuss whether the Borough of Phoenixville will need additional water treatment capacity and how such capacity is planned to be obtained. No design of any requested expansion at the water treatment plant shall be initiated without Commission approval.

Allocation, Entitlement and Surface Water Charges

On July 15, 1976, the Commission approved Certificate of Entitlement No. 134 (Certificate) for the Borough of Phoenixville's water withdrawal. The Certificate exempts the Borough for up to 21.280 mgm consumptive and 191.520 mgm non-consumptive use of water withdrawn from the Schuylkill River from DRBC surface water charges for water used within the Borough's service area in existence at the time of the approval of the certificate. Docket D-1967-123 CP described the Borough's service area as the Borough of Phoenixville, parts of Schuylkill Township, Chester County and parts of Upper Providence, Montgomery County.

The earliest Borough service area map on file with the Commission was a map with cover letter dated February 9, 1981. The map delineated service areas in the Borough of Phoenixville, Upper Providence Township and Schuylkill Township as described in Docket D-1967-123 CP. The map also showed two additional service areas located in East Pikeland Township. Although, the 2 areas in East Pikeland Township were not included in the docket description, it is assumed that this map represents the Borough's service area that existed at the time of the approval of the certificate of entitlement.

A revised service area map, submitted on November 1, 2012 shows that the Borough's current service area has changed since the date of approval of the Certificate. Portions of the original service area located southeast and southwest of the Borough in Schuylkill Township (Areas 1 and 2 on the 1981 map) are no longer served by the Borough. These areas are currently served by Aqua PA. The updated service map also indicates that the Borough's service area has been expanded in East Pikeland Township and Upper Providence Township. Specifically, the updated service areas includes the area located northwest of Mont Clare in Upper Providence Township (northwest expansion of Area 5 on the 1981 service area map) and an area in East Pikeland Township west of the Borough (expansion of the area surrounding Area 4 on the 1981 service area map). Because the new service areas were not in existence at the time of the approval of the Certificate of Entitlement, water use in these areas are subject to DRBC surface water charges.

Since the issuance of Entitlement No. 134, the Borough of Phoenixville has also entered into an agreement with PAWC to supply up to 1.15 mgd of finished surface water from the Borough to PAWC through two interconnections. The PAWC service area is located in the Oaks area of Upper Providence Township, Montgomery County and East Pikeland Township, Chester County, Pennsylvania both outside of the Borough of Phoenixville's service area depicted on a service area map submitted to the Commission with cover letter dated February 9, 1981. DRBC Docket No. D-90-26 CP issued to CUHWC and later transferred to PAWC for the interconnection, required that the PAWC provide payment to the DRBC for the project water use in accordance with the provisions of Resolution No. 74-6, as amended. In the future if the Borough of Phoenixville enters into agreement with other entities outside the service area in this docket, it will be liable to the DRBC for payments in accordance with the provisions of Resolution No. 74-6, as amended. In addition, the docket holder will need to file an application with the Commission to amend the docket to account for such agreements.

The withdrawal allocation approved under this docket is less than the entitlement amount but does not limit the Borough of Phoenixville's rights under the certificate. If in the future the

Borough of Phoenixville needs additional capacity for use within the within the Borough's service area in existence at the time of the approval of the certificate, it will remain exempt from surface water use charges for that water up to the amount approved in the certificate. However, the Borough will need to file an application with the Commission to amend the allocation provided for in this docket.

Water Audits for Public Water Supply Systems Serving Greater than 100,000 gpd

Section 2.1.8 of the Water Code states that it is the policy of the Commission to establish a standardized water audit methodology for owners of water supply systems serving the public to ensure accountability in the management of water resources. Voluntary Water Audits were encouraged for public water supply systems through December 31, 2011 (Section 2.1.8.B.). Effective January 1, 2012, the owners of each public water supply system are required to implement an annual calendar year water audit program conforming to IWA/AWWA Water Audit Methodology (AWWA Water Loss Control Committee (WLCC) Water Audit Software) and corresponding AWWA guidance (Section 2.1.8.C). The results of the first annual water audit shall be submitted to the Commission by March 31, 2013. Subsequent annual water audits shall be submitted annually to the Commission by March 31 every year thereafter.

Other Findings

The project is designed to conform to the requirements of the *Water Code* and *Water Quality Regulations* of the DRBC.

The DRBC estimates that the project withdrawals, used for the purpose of public water supply, result in a consumptive use of ten percent of the total water use. The DRBC definition of consumptive use is defined in Article 5.5.1.D of the *Administrative Manual – Part III – Basin Regulations – Water Supply Charges*.

The project does not conflict with the Comprehensive Plan and is designed to prevent substantial adverse impact on the water resources related environment, while sustaining the current and future water uses and development of the water resources of the Basin.

C. DECISION

I. Effective on the approval date for Docket No. D-1967-123 CP-2 below:

a. The project described in Docket No. D-67-123 CP is removed from the Comprehensive Plan to the extent that it is not included in Docket No. D-1967-123 CP-2; and

b. Docket No. D-67-123 CP is terminated and replaced by Docket No. D-1967-123 CP-2.

c. The project and the appurtenant facilities described in the Section A “Physical features” shall be added to the Comprehensive Plan.

II. The project and appurtenant facilities as described in the Section A “Physical features” are approved pursuant to Section 3.8 of the *Compact*, subject to the following conditions:

a. Docket approval is subject to all conditions, requirements, and limitations imposed by the PADEP, and such conditions, requirements, and limitations are incorporated herein, unless they are less stringent than the Commission's. The docket holder shall register with and report to the PADEP all surface and ground water sources described in this docket in accordance with the Pennsylvania Regulations (Title 25 - Environmental Protection, [25 PA. CODE CH. 110], Water Resources Planning).

b. The intakes and operational records shall be available at all times for inspection by the DRBC.

c. The intakes shall be operated at all times to comply with the requirements of the *Water Code* and *Water Quality Regulations* of the DRBC.

d. During any month, the combined withdrawal from all sources shall not exceed 182.311 million gallons or 5.881 mgd. No intake shall be pumped above the maximum instantaneous rate and monthly allocation as indicated below:

INTAKE NO.	MAXIMUM INSTANTANEOUS RATE	MONTHLY ALLOCATION
1	5.881 mgd	182.311
2	5.881 mgd	182.311

e. The docket holder shall pay for surface water use in excess of the amounts listed in Certificate of Entitlement No. 134, in accordance with the provisions of Resolution No. 74-6, as amended, or the terms of this docket.

f. The project withdrawals shall be metered with an automatic continuous recording device that measures to within 5 percent of actual flow. An exception to the 5 percent performance standard, but no greater than 10 percent, may be granted if maintenance of the 5 percent performance is not technically feasible or economically practicable. A record of daily withdrawals shall be maintained, and monthly totals shall be reported to the PADEP annually and shall be available at any time to the Commission if requested by the Executive Director.

g. Each new water service connection shall include a water meter in accordance with the DRBC's Resolution No. 87-7 (Revised).

h. In accordance with DRBC Resolutions No. 87-6 (Revised) and No. 2009-1, the docket holder shall implement to the satisfaction of the PADEP, the systematic program to monitor and control leakage within the water supply system. The program shall at a minimum include: periodic surveys to monitor leakage, enumerate non-revenue water and determine the current status of system infrastructure; recommendations to monitor and control leakage; and a schedule for the implementation of such recommendations. The docket holder shall proceed expeditiously to correct leakages and unnecessary usage identified by the program.

i. In accordance with DRBC Resolution No. 2009-1 and Section 2.1.8 of the Water Code, the docket holder shall implement an annual calendar year water audit program conforming to IWA/AWWA Water Audit Methodology (AWWA Water Loss Control Committee (WLCC) Water Audit Software) and corresponding guidance. The results of the first annual water audit shall be submitted to the Commission by March 31, 2013. Subsequent annual water audits shall be submitted annually to the Commission by March 31 every year thereafter.

j. The docket holder shall implement to the satisfaction of the PADEP, the continuous program to encourage water conservation in all types of use within the facilities served by this docket approval. The docket holder will report to the PADEP on the actions taken pursuant to this program and the impact of those actions as requested by the PADEP.

k. No water service connections shall be made to newly constructed premises with plumbing fixtures and fittings that do not comply with water conservation performance standards contained in Resolution No. 88-2 (Revision 2).

l. The docket holder shall continue to implement its Water Conservation Plan as approved by PADEP, and shall report to the PADEP on actions taken pursuant to this program and the impact of those actions as requested by the PADEP.

m. The docket holder shall implement to the satisfaction of the PADEP, a drought or other water supply emergency plan.

n. Sound practices of excavation, backfill and reseedling shall be followed to minimize erosion and deposition of sediment in streams from any new facilities or repair related construction.

o. No new water service connections shall be made to premises connected to sewerage systems which are not in compliance with all applicable effluent limits contained in State permits and the *Water Quality Regulations* of the Commission.

p. Nothing herein shall be construed to exempt the docket holder from obtaining all necessary permits and/or approvals from other State, Federal or local government agencies having jurisdiction over this project.

q. The docket holder is permitted to provide the water approved in this docket to the areas included in Section A.3. Area Served of this docket. Any expansion beyond those included in Section A.3. Area Served is subject to DRBC review and approval in accordance with Section 3.8 of the *Compact*.

r. Within three years of docket approval, the docket holder shall submit a study of their current and projected ten year water demands and shall file a progress report thereon with the Commission and PADEP. This report will discuss whether the Borough of Phoenixville will need additional water treatment capacity and how such capacity is planned to be obtained. No design of any requested expansion at the water treatment plant shall be initiated without Commission approval. The docket holder is required to submit an application for DRBC

review and approval in accordance with Section 3.8 of the *Compact* at least 1 year prior to any future WTP expansion.

s. Unless an extension is requested and approved by the Commission in advance, in accordance with paragraph 11 of the Commission's Project Review Fee schedule (Resolution No. 2009-2), the docket holder is responsible for timely submittal of a docket renewal application on the appropriate DRBC application form at least 12 months in advance of the docket expiration date set forth below. The docket holder will be subject to late charges in the event of untimely submittal of its renewal application, whether or not DRBC issues a reminder notice in advance of the deadline or the docket holder receives such notice. In the event that a timely and complete application for renewal has been submitted and the DRBC is unable, through no fault of the docket holder, to reissue the docket before the expiration date below (or the later date established by an extension that has been timely requested and approved), the terms and conditions of the current docket will remain fully effective and enforceable against the docket holder pending the grant or denial of the application for docket approval.

t. The issuance of this docket approval shall not create any private or proprietary rights in the water of the Basin, and the Commission reserves the rights to amend, alter or rescind any actions taken hereunder in order to insure the proper control, use and management of the water resources of the Basin.

u. If the monitoring required herein, or any other data or information demonstrates that the operation of this project significantly affects or interferes with any domestic or other existing uses of ground or surface water, or if the docket holder receives a complaint by any existing ground or surface water users within the zone of influence of the withdrawal, the docket holder shall immediately notify the Executive Director of any complaints by any ground or surface users within the zone of influence of the withdrawal, and unless excused by the Executive Director, shall investigate such complaints. The docket holder should direct phone call notifications of potential well or surface water interference or complaints of interference to the DRBC Project Review Section at 609-883-9500, extension 216. Oral notification must always be followed up in writing directed to the Executive Director. In addition, the docket holder shall provide written notification to all potentially impacted users of wells or surface water supplies of the docket holder's responsibilities under this condition. Any ground or surface water user which is substantially adversely affected, rendered dry or otherwise diminished as a result of the docket holder's project withdrawal, shall be repaired, replaced or otherwise mitigated at the expense of the docket holder. A report of investigation and/or mitigation plan prepared by a hydrologist shall be submitted to the Executive Director as soon as practicable. The Executive Director shall make the final determination regarding the validity of such complaints, the scope or sufficiency of such investigations, and the extent of appropriate mitigation measures, if required.

v. The Executive Director may modify or suspend this approval or any condition thereof, or require mitigating measures pending additional review, if in the Executive Director's judgment such modification or suspension is required to protect the water resources of the Basin.

w. For the duration of any drought emergency declared by either Pennsylvania or the Commission, water service or use by the docket holder pursuant to this approval shall be subject to the prohibition of those nonessential uses specified by the Governor of Pennsylvania, the Pennsylvania Emergency Management Council, PADEP, or the Commonwealth Drought Coordinator to the extent that they may be applicable, and to any other emergency resolutions or orders adopted hereafter by the Commission.

x. Any person who objects to a docket decision by the Commission may request a hearing in accordance with Article 6 of the *Rules of Practice and Procedure*. In accordance with Section 15.1(p) of the Delaware River Basin Compact, cases and controversies arising under the Compact are reviewable in the United States district courts.

BY THE COMMISSION

APPROVAL DATE: December 5, 2012

EXPIRATION DATE: June 19, 2017